

EMResource User Manual

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Oklahoma State
Department of Health
Trauma Division

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INTRODUCTION

EMResource Description

EMResource is an Internet based communication tool that enables access to real-time information on provider capability and capacity to authorized users. EMResource may be used to communicate important information, such as health alerts, disaster drills, and other events simultaneously and consistently to the appropriate users.

EMResource participants are highly encouraged to place the computer that will display the system in a highly visible spot within their operations, i.e., in the emergency department of hospitals, in dispatch centers of transporting EMS agencies or in other appropriate locations that are staffed 24 hours a day.

EMResource primary users are expected to remain logged on to the system 24 hours a day, seven days a week, when possible.

Purpose

The implementation of EMResource across the state is an effort to efficiently and effectively enable communication of real time information within the medical community.

EMResource Functions

- Hospital Emergency Department Status: A regional status screen displays the self reported divert status of each participating hospital in the region.
- 2. Mass Casualty Incident (MCI) Support: EMResource provides tools to better enable coordination of resources during a mass casualty event.
- 3. Resource Alerts: Time sensitive information may be disseminated through EMResource to users.
- 4. Data Reporting: EMResource allows the use of templates to enable a user to communicate with the system administrator.

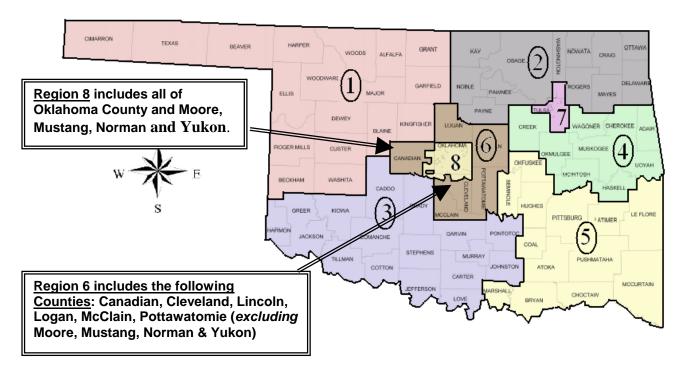
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ORGANIZATIONAL STRUCTURE

EMResource Organization

For organizational purposes, EMResource participants will be divided into two zones: east and west. The east zone will consist of trauma regions two, four, five and seven. The west zone will consist of trauma regions one, three, six and eight. Primary users will be allowed access to both the east zone and west zone views to better facilitate statewide communication. The regions are more specifically divided according to the following boundaries:

Oklahoma Trauma Regions
West Oklahoma Zone
Regions 1, 3, 6, 8
Regions 2, 4, 5, 7



See <u>Appendix 1</u> for further clarification on regional and zone boundaries

Primary User

Primary users are healthcare provider organizations with a need to interact with EMResource. Primary users may view statewide status information and update their respective information. The primary user may retrieve user specific data for data collection, analysis and quality improvement activities.

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Secondary User

Secondary users are authorized healthcare or emergency response organizations with a demonstrated need to access EMResource®. They may log on to EMResource for informational purposes only. Secondary users may view defined regional status information. These users cannot update or alter system information nor may they access user specific data.

Regional Administrator

The regional administrator will serve as the regional area manager of the EMResource and initial point of contact for the end users in their respective trauma regions. The regional administrator functions as liaison between end users and the state administrator. In the absence of a regional administrator the state administrator will serve in this role. The regional administrators will develop guidelines for regional operations and make contingency plans for alternative sites and/or personnel to handle these duties when necessary. The regional administrator will have administrative level access that will allow them to change user information in their region. Alternative personnel assigned duties by the regional administrator will be referred to as 'Designees'. Designees will have the necessary level of access to perform duties assigned by the regional administrator.

System Administrator

The system administrator will serve as the statewide manager of the EMResource and as liaison between users or regional administrators and the system vendor. The state administrator will function as regional administrator in the event that a region does not have a regional administrator.

Administrative Structure

The overall operational and administrative responsibility for the EMResource in Oklahoma falls upon the Oklahoma State Department of Health, Trauma Division.

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DATA REPORTING

Data reports have been designed to meet state's emergency preparedness needs. These reports may be revised/updated by the OSDH as needs are identified. Current report templates include:

Hospital Daily Report

The hospital daily report is a hospital census report reflective of 24-hour census activity (midnight census). EMResource will send a reminder at midnight to the facility-designated user responsible for completing this report, which has until 10:00 A.M. to complete.

HAvBED Report

(Hospital Available Beds for Emergencies and Disasters (HAvBED) System)

The primary purpose is for our state to have a real-time electronic hospital bed tracking/monitoring system that will serve as a management tool to assist in a system/region's ability to care for a surge of patients in the event of a mass casualty incident. This report enables communication of hospital statuses and its resources to other emergency agencies to include: the aggregation of data at the region and state level, display hospital identification information, report bed capacity by various categories, ED diversion status, decontamination capabilities and ventilator availability status. Our HAvBED report complies with Health and Human Services and the Assistant Secretary for Preparedness and Response 2007 Cooperative Agreement guidance for the National Preparedness Goal, which outlines Bed Tracking System Requirements and Bed Definitions.

The HAvBED query is disseminated on EMResource as an event, with a time period for providers to respond. Our goal on a preparedness level is to query all Level I-IV trauma facilities on a quarterly basis to achieve a minimum response rate of 50% to a target goal of 75% from these facilities.

In the situation of a real event, the HAvBED query will be conducted on a need basis as determined by the Chief or Assistant Chief, Terrorism Preparedness and Response Service, Oklahoma State Department of Health. The EMResource Administrator or his designee will launch the survey.

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Data elements and definitions can be found in Appendix 2.

ACCESS

Interstate Resource Access

The OSDH will secure agreements with border regions and/or states for access to their regional or state views. Those regions/states will receive access to view the appropriate Oklahoma region(s). Access for both parties in these circumstances will be read only.

Regional Data

Regional reports regarding the various provider status tracked by EMResource may be utilized at the regional or state level for planning and QI activities.

Regional System Information gathered through preparedness reporting will be available to the state administrator. Regional and state planning personnel may request consolidated reports from this data from the state administrator. The state administrator will decide requests for this data in consultation with: the appropriate RTAB, any appropriate Regional Emergency Planning organization, State Terrorism Preparedness and Response Service (TPRS) Director and the State Trauma Coordinator.

PROVIDER INFORMATION

Provider Contact Information

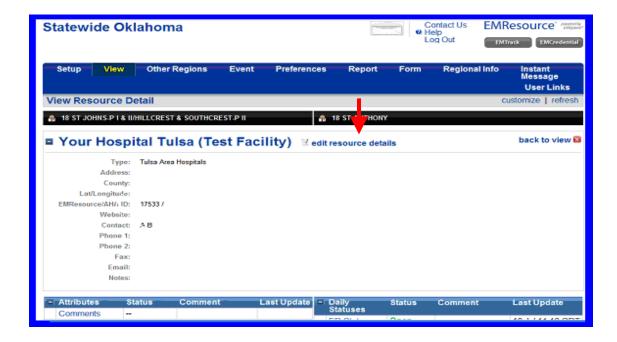
Each provider is responsible to maintain accurate contact information on EMResource.

a. To update the contact information of your facility you must have a blue key to the left of your facility's name. Double click on your facilities name. For example in the diagram below: "Your Hospital"

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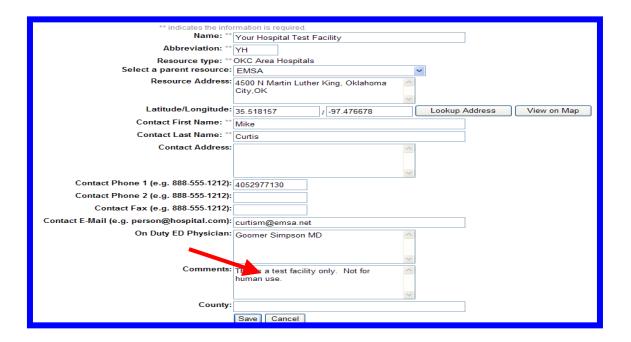


 Once you have double clicked on your facility's name, a resource information box will pop up, as seen below. Click on "edit resource details".



c. Once you have clicked on "edit resource details", the "Update This Resource" screen will appear. As a minimum, please update the first/last name of contact person, contact phone and email address. After you have entered the data, click on the "save" button.

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UPDATING YOUR STATUS

Provider Status

The following standard terminology and definitions have been adopted for hospital and emergency department diversionary status. Hospitals are expected to maintain or update their own status so that their capabilities or capacity can be readily accessed by other providers.

One critical concept to note is that hospitals are considered open unless posted otherwise on EMResource.

Hospital Diversion Status

Caution: This is a limited divert status indicating that the facility does not have the
capability or capacity to accept the specific patient types. Attempts should be made to
direct patients that require the unavailable or saturated resource to another facility. Other
patient types will be accepted.

Specification pick-list for this type of divert:

- Critical Care saturation
- OR saturation

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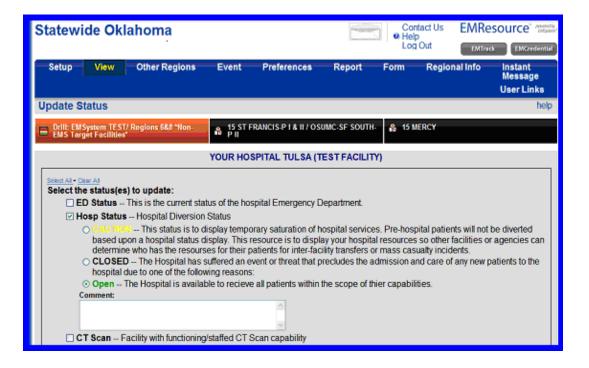
- CT/MRI scanner down
- Neurosurgery saturation
- Burn saturation
- L&D saturation
- NICU saturation
- PICU saturation
- Telemetry saturation
- Med/Surg saturation

Time Limit: None

Display color: Yellow

Rationale: Because the situations identified in this status may be prolonged, there is no time limit on this status. Facilities need to be attentive to updating their status when the situation is resolved.

Example of screen view:



- 2. **CLOSED** The facility has suffered an event or threat that precludes the admission and care of any new patients due to the following reasons:
 - Internal Disaster
 - Potential Hazardous Contamination

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Time Limit: None

Display Color: Black

Rationale: Self explanatory

3. Open: The facility is available to receive all emergency patients within the scope of their

capabilities.

Time Limit: None

Display color: Green

Rationale: Self explanatory

Distinction: This status is to show temporary saturation of services and is distinctly different from Provider Resource Availability that is used to

demonstrate specialty coverage.

Emergency Department Diversion Status

1. **Closed:** The Emergency Department has suffered an event or threat that precludes the admission and care of any new patients in the ED due to the following reasons:

CLOSED Reason:

- Internal Disaster
- Potential Hazardous Contamination

Time Limit: None

Display Color: Black

Rationale: Self explanatory

CT Divert: The facility does not currently have the capacity or capability to accept patients with critical time sensitive injuries or illnesses that require CT scanner, but can accept all other types.

Time limit: 24 hours

Display Color: Yellow

Rational: Self explanatory

- 3. **ED Select:** The facility does not currently have the capacity or capability to accept patients with critical time sensitive injuries or illnesses that require neurology or orthopedics, but can accept all other types. (Reason required.)
 - Neuro

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- Ortho

Time Limit: 2 hours

Display Color: Yellow

Rationale: Self explanatory

4. **Forced Open:** The facility's diversionary status has been overridden to '**Open**' status by the system administrator or their designee due to a lack of local or regional ED

resources. Defaults to 'Status Unknown' after the time limit expires.

Time Limit: 1 hour

Display color: Orange

Rationale: The time limit on this status is to prevent any individual facility from being

placed on open status for a prolonged period.

5. **Open**: Emergency Department is available to receive all emergency patients within the scope of their capabilities.

Time Limit: None

Display color: Green

Rationale: Self explanatory

6. **Total ED Divert:** This facility has temporarily exhausted its resources and does not currently have either the capacity or the capability to accept any additional ambulance patients. Defaults to '**OPEN**' after time limit expires.

Time Limit: 2 hours

Display color: Red

Rationale: A two hour countdown timer begins once this status is selected. Once the two hours pass, the status defaults to '**OPEN**' if it is not updated. It is in the best interest of the facility to update the status in a timely manner to avoid receiving unnecessary inquiries from other providers when they actually desire to remain on divert.

7. Major Trauma Divert: The facility does not currently have the capacity or the capability to accept additional critical trauma patients at this time. This status should only be used by facilities that normally accept major trauma patients. The status defaults to 'OPEN' after time limit expires.

Time Limit: 2 hours

Display color: Red

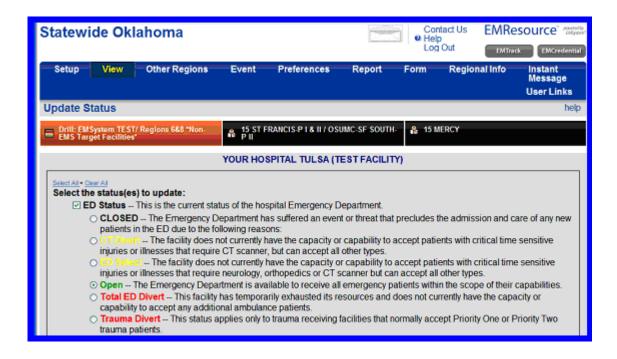
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Rationale: A two hour countdown timer begins once this status is selected. Once the two hours pass the status defaults to '**OPEN**' if it is not updated. It is in the best interest of the facility to update the status in a timely manner to avoid receiving unnecessary inquiries from other providers when they actually desire to remain on divert.

Trauma Divert Reason

- Major
- Select

Example of screen view:



PROVIDER RESOURCE AVAILABILITY

EMResource can display hospital specialty coverage status on a real time basis. A customized list of specialties has been developed for Oklahoma. It is the individual hospitals responsibility to ensure coverage status is updated as soon as changes occur.

Color: Yes - Green

No - Red

N/A - Black

Definition: Yes = Current coverage available

No = Coverage is not currently available

N/A = This service is not offered at this facility

Abbreviated Specialties

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Card - Cardiology

NeoNat – Neonatology

Neuro – Neurology

NeuSrg – Neurosurgery

Hand - Orthopedic Hand

OB/GYN - Obstetrician and gynecologist

OMF - Oral Maxillofacial

Ortho - Orthopedics

Srg - Surgery



Specialty	Definition		
Cardiology	The medical study of the structure, function, and disorders of the heart.		
Neonatology	The branch of pediatrics that deals with the diseases and care of newborn infants.		
Neurology	The medical science that deals with the nervous system and disorders affecting it.		
Neurosurgery	Surgery on any part of the nervous system.		
OB/GYN	The branch of medicine that deals with the diagnosis and treatment of disorders affecting the female reproductive organs, the care of women during pregnancy, childbirth, and the recuperative period following delivery.		
Oral Maxillofacial Surgery	Surgical specialists of the dental profession		
Orthopedics	The branch of medicine that deals with the prevention or correction of injuries or disorders of the skeletal system and associated muscles, joints, and ligaments.		
Psychiatry	The branch of medicine that deals with the diagnosis, treatment, and prevention of mental and emotional disorders.		
Surgery	The branch of medicine that deals with the diagnosis and treatment of injury, deformity, and disease by manual and instrumental means.		
Hand	The branch of medicine that deals with the prevention or correction of injuries or disorders of the skeletal system and associated muscles, joints, and ligaments pertaining to the hand.		

Distinction: This status is used to demonstrate specialty coverage and is distinctly different than the divert statuses which are used to show temporary saturation of services.

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Air Ambulance Status

All air ambulance services licensed to operate in the state of Oklahoma and are listed on EMResource is expected to update their status on a real time basis.

 Available: The aeromedical resource is currently ready and able to respond to emergency calls.

Time Limit: 24 hours, The service will automatically default to "Not Available" after 24

hours.

Display color: Green

- 2. **Call for Status**: Current conditions necessitate that providers in need of aeromedical transport call to determine resource availability because:
 - a. The aeromedical resource may already be dispatched to a call or be on standby.
 - b. Local weather conditions may temporarily impact the ability of this aeromedical resource to respond.
 - c. This aeromedical resource may be temporarily unavailable due to routine service or fueling.

Time Limit: 2 hours, the service will default to "Unavailable" after 2 hours.

Display Color: Yellow

3. **Not Available**: This aeromedical resource is currently unable to respond in a timely manner.

Time Limit: N/A

Display color: Red

SYSTEM ALERTS

Health Alerts

Once a public health threat is identified by a legitimate public health agency, it is a challenge to disseminate the necessary information quickly. The public health agency must determine the severity of the threat, who should know about it and how quickly the information needs to be disseminated. One of the most important tasks of managing a public health threat is communication. The focus of this section of this document is to ensure that authorized Public

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Health Agencies have access to a means of communicating with emergency providers in

Oklahoma on a 24-hour basis.

Quick notification of a known public health threat to the emergency departments and EMS

agencies is important for two reasons:

1. The sooner a provider is made aware of a public health threat or potential health threat,

the quicker they can alert their staff and be prepared to manage the situation.

2. Early notification also changes the posture of a provider. The identification,

documentation and reporting of incidents related to the threat, become more focused.

Public Health Agencies with authority to initiate an alert are: Oklahoma City County Health

Department, Tulsa City County Health Department, and the Oklahoma State Department of

Health.

Any other health agency or provider that identifies the need for an alert should collaborate with

one of these agencies for approval to post an alert.

For details on how to initiate a Health Alert see Public Health Alert Guidelines, Addendum 1.

Types of Health Alerts:

1. **General Health Alert**: This alert is for disseminating information only. It will have an

audible tone and appear on the EMResource in a solid green alert bar.

Audible tone: Yes

Display color: Green

2. Urgent Health Alert: This alert is used for disseminating information and obtaining

feedback from providers. It will have an audible tone and appear on the EMResource in a

solid orange alert bar.

Audible tone: Yes

Display color: Orange

3. Critical Health Alert: This alert is for disseminating information and obtaining feedback

from the hospitals. This alert is used when an immediate public health threat is identified. It

will have an audible tone and appear on the EMResource in a solid red alert bar. This level of

Health Alert requires a response from the providers.

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Audible tone: Yes

Display color: Red

Although all of these alerts have a distinct appearance on the EMResource, the display color and title of the event suggests a level of importance. It is the responsibility of the Public Health Agency making the request for the health alert to determine what level is appropriate for the event.

Other Types of Alerts:

1. Critical Resource Alert

Critical Resource Alerts are used for posting time sensitive information. These alerts may include but are not limited to:

- Tornado warning
- Major fire
- Potential HAZMAT incident
- Any imminent threat to emergency providers

This type of alert is informational only with pop-up window available for narrative comment.

Display color: Red Audible tone: Yes

Protocol: May be initiated by emergency department or public safety responder that identifies a potential event. The regional administrator or their designee is responsible for validating the information or posting it as "unconfirmed".

2. FYI Alert

Informational only with pop-up window available for narrative comment. Example = Amber Alert

Display color: Green

Audible tone: No

Protocol: Regional administrator or their designee is responsible to screen and post this event.

3. MCI Alert

An MCI is an incident with enough patients that the local providers cannot provide timely, appropriate clinical care.

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Display color: Red **Audible tone**: Yes

Protocol:

1. Each region will establish the number of actual or potential patients that is necessary to initiate this type of event.

- 2. This type of event may be initiated by an emergency department or public safety responder that identifies an actual event.
- The acute phase of the event will be terminated by the EMResource administrator or their designee when the field providers make the determination that there are no longer sufficient patients to justify MCI status.
- 4. Continuing information from a long-term event may be handled through MCI updates, as needed once the risk for mass casualties has ended.

Policy:

Hospitals involved in the event will be required to respond with the number of patients in each category that they can accept.

- 1. MCI Red are those patients who are most severely injured who will likely need immediate surgery and hospitalization in a critical care bed.
- MCI Yellow are those patients with significant injuries who require urgent treatment to prevent their condition from worsening and who may require hospitalization after treatment.
- MCI Green are those patients who are classified as 'non-urgent' and can wait for treatment.

TROUBLESHOOTING

Local System Interruptions

A local system interruption is any interruption in web access to EMResource by end users that cannot be resolved by following standard protocols.

Protocol:

- 1. Before calling your Regional Administrator you should attempt to resolve the problem by completing the following steps:
 - A. Log off and shut down the EMResource screen.

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- B. Shut your computer off (leave off for at least 5 minutes).
- C. Turn computer back on.
- D. Attempt to log-on to EMResource.
- 2. If the problem persists, call your regional administrator or their designee to report the problem.
- 3. The regional administrator or their designee will confirm your identity by asking for your login and by calling you back at your facility.
- 4. The regional administrator or their designee will update your data as needed until the problem is resolved.
- 5. The regional administrator or their designee will work with you to resolve your problem and if necessary, they will contact your IT department.
- 6. Continue to report your diversion status to your regional administrator or their designee until the problem is resolved.
- 7. If the regional administrator is still unable to resolve the problem, the state administrator will be contacted.
- 8. When the regional administrator is unavailable, end users may contact the state administrator.

Area wide System Interruptions

An area wide interruption is an interruption in web access to EMResource that is not limited to a single end user.

- 1. If the regional administrator or their designee identifies an area wide interruption they will:
 - A. Contact regional providers to identify extent of interruption.
 - B. Report the problem to state administrator who will interface with EMResource and the necessary area utilities.
 - C. Provide updates to providers on status of system corrections.



Please try these helpful tips before calling your state/regional administrator.

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APPENDIX

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Appendix 1: EMResource® Zones by County

OKLAHOMA						
Region 1 NORTHWEST	Region 3 SOUTHWEST	Region 2 NORTHEAST	Region 4 EAST CENTRAL			
Alfalfa	Caddo	Craig	Adair			
Beaver	Carter	Delaware	Cherokee			
Beckham	Comanche	Kay	Creek			
Blaine	Cotton	Mayes	Haskell			
Cimarron	Garvin	Noble	McIntosh			
Custer	Grady	Nowata	Muskogee			
Dewey	Greer	Osage	Okmulgee			
Ellis	Harmon	Ottawa	Sequoyah			
Garfield	Jackson	Pawnee	Wagoner			
Grant	Jefferson	Payne				
Harper	Johnston	Rogers				
Kingfisher	Kiowa	Washington				
Major	Love	_				
Roger Mills	Murray					
Texas	Pontotoc					
Washita	Stephens					
Woods	Tillman					
Woodward						
Region 6 CENTRAL	Region 8 OKLAHOMA	Region 5 SOUTHEAST	Region 7 TULSA			
Canadian	Oklahoma	Atoka	Tulsa			
Cleveland	Includes:	Bryan				
Lincoln	1. Norman	Choctaw				
Logan	Regional	Coal				
McClain	Hospital	Hughes				
Pottawatomie	2. Integris Canadian	Latimer				
	Vallev.	Le Flore				
		Marshall				
		McCurtain				
		Okfuskee				
		Pittsburg				
		Pushmataha				
		Seminole				

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Appendix 2: Part I-3-B-1 Bed Tracking System (HAvBED)

1. Requirements

- Report aggregate State level data to the HHS SOC no more often than twice daily during emergencies with the following Hospital Identification Information:
 - i. Hospital Name
 - ii. Contact Name
 - iii. Street Address
 - iv. City
 - v. State
 - vi. Zip Code
 - vii. Area Code
 - viii. Local Telephone Number
 - ix. County
- b) Report on the following categories as defined in the HHS HAvBED system Vacant / Available Bed Counts:
 - i. Intensive Care Unit (ICU)
 - ii. Medical and Surgical (Med/Surge)
 - iii. Burn Care
 - iv. Peds ICU
 - v. Pediatrics (Peds)
 - vi. Psychiatric (Psych)
 - vii. Negative Pressure Isolation
 - viii. Emergency Department Divert Status
 - ix. Decontamination Facility Available
 - x. Ventilators Available

2. Bed Definitions

- a) Vacant/Available Beds: Beds that are vacant and to which patients can be transported immediately. These must include supporting space, equipment, medical material, ancillary and support services, and staff to operate under normal circumstances. These beds are licensed, physically available. Have staff on hand to attend to the patient who occupies the bed.
- b) Adult Intensive Care Unit (ICU): Can support critically ill/injured patients, including ventilator support.
- c) Medical/Surgical: Also thought of as "Ward" beds.
- d) Burn or Burn ICU: Either approved by the American Burn Association or self-designated. (These beds should not be included in other ICU bed counts).
- e) Pediatric ICU: The same as adult ICU, but for patients 17 years and younger.
- f) Pediatrics: Ward medical/surgical beds for patients 17 years and younger.
- g) Psychiatric: Ward beds on a closed/locked psychiatric unit or ward beds where a patient will be attended by a sitter.
- h) Negative Pressure/Isolation: Beds provided with a negative inflow, providing respiratory isolation. Note: This value may represent available beds included in the counts of other types.
- i) Operating Rooms: An operating room that is equipped and staffed and could be made available for patient care in a short period.

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RTAB Regional Contact Information

In the event that you have to contact your regional administrator with problems concerning EMResource, please contact the individual from your designated region.

RTAB 1

Vickie Eggers, NW RMRS Coordinator Phone: (580) 237-4810 or (580) 541-6141

Fax: (580) 237-8230

E-mail: vicki@nodanet.org

RTAB 2, 4, 5

Bill Henrion, EMResource Administrator Phone: (405) 203-9026 or (405) 271-2657

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RTAB 3

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